

In the Claims:

1. (Deleted) An apparatus for cooling, a liquid in a portable container comprising:  
  
a housing, said housing having a top end and a bottom end, said bottom end adapted to attach to said portable container;  
  
a can of compressed gas within said housing, said can having a release valve to expel said compressed gas; and,  
  
a heat exchanger around an exterior surface of said can, said heat exchanger adapted to absorb heat from a warm liquid.
2. (Amended) An apparatus according to claim 1-20 wherein said housing is a hollow cylinder.
3. (Amended) An apparatus according to claim 1-20 wherein said top end of said housing has a bevel for pouring and drinking liquid from said container.
4. (Deleted) An apparatus according to claim 1 wherein said bottom end of said housing is threaded.
5. (Amended) An apparatus according to claim 1-20 wherein said bottom end of said housing is rubber.
6. (Amended) An apparatus according to claim 1-20 wherein said heat exchanger is a plurality of fins.
7. (Original) An apparatus according to claim 6 wherein said fins are disc-shaped.

8. (Amended) An apparatus according to claim ~~1~~20 wherein said heat exchanger is a porous mesh of metal.
9. (Amended) An apparatus according to claim ~~1~~20 wherein said heat exchanger is made out of aluminum.
10. (Amended) An apparatus according to claim ~~1~~20 wherein said heat exchanger is made out of copper.
11. (Amended) An apparatus according to claim ~~1~~20 wherein said portable container is a canteen.
12. (Amended) An apparatus according to claim ~~1~~20 wherein said portable container is a hydration system.
13. (Amended) An apparatus according to claim ~~1~~20 wherein said portable container is an open container.
14. (Cancelled) An apparatus for cooling a liquid in a portable container comprising: a compressor, said compressor residing on a sidewall of said container; a length of tubing wrapping around said container, said tubing housing a refrigerant, said tubing being connected to said compressor; and an expansion chamber, said expansion chamber having a plurality of heat exchangers to cool said liquid in said container.
15. (Cancelled) An apparatus according to claim 14 wherein said compressor is powered by rotation of a crank.
16. (Cancelled) An apparatus according to claim 14 wherein said compressor is battery powered.

17. (Cancelled) An apparatus according to claim 14 wherein said compressor is a Sterling engine.
18. (Cancelled) An apparatus according to claim 14 wherein said refrigerant is carbon dioxide.
19. (Cancelled) An apparatus according to claim 14 wherein said refrigerant is a hydroflucarbon.
20. (New) An apparatus for cooling a liquid in a portable container said portable container having a body for holding a liquid and an opening for removing said liquid from said body, said apparatus comprising: a housing, said housing having a first end and a second end, said second end adapted to be removably secured to said opening of said portable container; said housing having a can of compressed gas within said housing, said can having a release valve at said first end of said can to release said compressed gas; said can having a heat exchanger around at least a portion of an exterior surface of said can and wherein said heat exchanger absorbs heat from a liquid in said container when said liquid passes from said portable container into said housing and flows between the external surface of said can and an interior wall of said housing.
21. (New) An apparatus according to claim 20 wherein said second end of said housing is threaded to be removably secured to a threaded opening in said portable container.
22. (New) An apparatus according to claim 20 wherein said can of compressed gas has a release nozzle that has an open position and closed position.

23. (New) An apparatus according to claim 22 wherein said release valve is in an open position when downward pressure is placed on said valve and said valve is in a closed position when said pressure is released.

24. (New) An apparatus according to claim 22 wherein said release valve is in an open position when said valve is pushed to one side and said valve is in a closed position when said valve is released.

25. (New) An apparatus for cooling a liquid in a portable container, said portable container having a body for holding a liquid and an opening for removing said liquid from said body, said apparatus comprising a housing having a top end and a bottom end, said bottom end adapted to be removably secured to said opening in said portable container, said housing having a receptacle containing a compressed gas and a valve means for releasing said compressed gas, said receptacle having an exterior surface, and wherein said exterior surface of said receptacle has a first temperature prior to a release of compressed gas through said valve means and a second lower temperature after release of compressed gas through said valve means, said exterior surface of said receptacle cooling said liquid in said portable container as said liquid flows between said housing and said exterior surface of said receptacle.

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- 1.(Deleted)
2. (Amended) An apparatus according to claim 20 wherein said housing is a hollow cylinder.
- 3.(Amended) An apparatus according to claim 20 wherein said top end of said housing has a bevel for pouring and drinking liquid from said container.
4. (Deleted)
5. (Amended) An apparatus according to claim 20 wherein said bottom end of said housing is rubber.
6. (Amended) An apparatus according to claim 20 wherein said heat exchanger is a plurality of fins.
7. (Original) An apparatus according to claim 6 wherein said fins are disc-shaped.
8. (Amended) An apparatus according to claim 20 wherein said heat exchanger is a porous mesh of metal.
9. (Amended) An apparatus according to claim 20 wherein said heat exchanger is made out of aluminum.
10. (Amended) An apparatus according to claim 20 wherein said heat exchanger is made out of copper.
11. (Amended) An apparatus according to claim 20 wherein said portable container is a canteen.
12. (Amended) An apparatus according to claim 20 wherein said portable container is a hydration system.

13. (Amended) An apparatus according to claim 20 wherein said portable container is an open container.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (New) An apparatus for cooling a liquid in a portable container said portable container having a body for holding a liquid and an opening for removing said liquid from said body, said apparatus comprising: a housing, said housing having a first end and a second end, said second end adapted to be removably secured to said opening of said portable container; said housing having a can of compressed gas within said housing, said can having a release valve at said first end of said can to release said compressed gas; said can having a heat exchanger around at least a portion of an exterior surface of said can and wherein said heat exchanger absorbs heat from a liquid in said container when said liquid passes from said portable container into said housing and flows between the external surface of said can and an interior wall of said housing.

21. (New) An apparatus according to claim 20 wherein said second end of said housing is threaded to be removably secured to a threaded opening in said portable container.

22. (New) An apparatus according to claim 20 wherein said can of compressed gas has a release nozzle that has an open position and closed position.

23. (New) An apparatus according to claim 22 wherein said release valve is in an open position when downward pressure is placed on said valve and said valve is in a closed position when said pressure is released.

24. (New) An apparatus according to claim 22 wherein said release valve is in an open position when said valve is pushed to one side and said valve is in a closed position when said valve is released.

25.(New) An apparatus for cooling a liquid in a portable container, said portable container having a body for holding a liquid and an opening for removing said liquid from said body, said apparatus comprising a housing having a top end and a bottom end, said bottom end adapted to be removably secured to said opening in said portable container, said housing having a receptacle containing a compressed gas and a valve means for releasing said compressed gas, said receptacle having an exterior surface, and wherein said exterior surface of said receptacle has a first temperature prior to a release of compressed gas through said valve means and a second lower temperature after release of compressed gas through said valve means, said exterior surface of said receptacle cooling said liquid in said portable container as said liquid flows between said housing and said exterior surface of said receptacle